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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,084

09/27/2005

Robert Allen Castlebary

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EXAMINER

PORTKA, GARY J

ART UNIT

PAPER NUMBER

2188

MAIL DATE

DELIVERY MODE

03/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,084	CASTLEBARY, ROBERT ALLEN	
	Examiner	Art Unit	
	Gary J. Portka	2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/10/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims and 7 were amended by Applicant. Claims 1-12 are pending.

Response to Arguments

2. Applicant's arguments filed December 6, 200 have been fully considered but they are not persuasive. Applicants have argued that Stern does not disclose applying read addresses at a rate slower than the rate at which read clock pulses are applied.

Examiner disputes this under two possible interpretations of the claim language. The first is that clearly any such device such as in Stern may have periods of time in which no read addresses are available, or they are not available as fast as the device can accept them. In such a case not all read clock pulses would have an associated read address, thus reading on the claim language. The second is that the device of Stern adjusts the frequency of the clock and resulting data read out, where the original frequency of applying read clock pulses may be considered the claimed frequency. At a later time the read addresses could be applied at a lower frequency than the original frequency, since the circuit may adjust the circuit frequency as either higher or lower. Applicants also argue that Stern does not disclose applying read clock pulses at a frequency 4 times f_n . Examiner disputes this, since the 4X clock is supplied directly from the Oscillator 20 to the FIFO and Oscillator Control Logic 12 (Fig. 1), and may be considered a read clock pulse to the extent claimed since it is a clock pulse applied when the device is being read.

Claim Objections

3. Claims 1 and 7 are objected to because of the following informalities: Claims 1 and 7 recite “within one a prescribed threshold”, which appears to be missing words. Applicants have responded that no such wording appears, but both the related PGPUB and the original claims of record are worded this way. If Applicant has submitted an amendment that does not appear on the record, it should be resubmitted along with return receipt for proof of delivery date. If this is not possible, the required change should be shown in a new amendment.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Stern et al., US Patent 4,805,198.

6. As to claims 1, 6, 7 and 12, Stern discloses a method and system for reading data from a memory to achieve reduced jitter, comprising applying successive read clock pulses to the memory at a frequency of xf_n (see Fig. 1, the 20 4X output clock is input to the FIFO) where x is a whole integer (4) and f_n is a frequency at which the memory is clocked to write data, applying successive read addresses to the memory at a rate slower than xf_n (see arguments hereinabove) to identify successive locations in the memory for reading when the memory is clocked with read clock pulses to enable

reading of samples stored at such successive locations, and altering the duration of at least one successive Read Addresses (oscillator increase or decrease in frequency will alter the duration of the address) in response to memory usage status to maintain memory capacity within at least one a prescribed threshold. See col. 3 line 11 to col. 4 line 12.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-5 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al., US Patent 4,805,198, in view of Spalink, US 2007/0116062.

9. As to claims 2-5 and 8-11, Stern does not disclose lengthening or shortening the duration by repeating or skipping reading of fractional samples. Stern adjusts the output by modifying the frequency. However, it was also known that this result could be achieved by lengthening or shortening the durations by repeating or skipping reading of fractional samples. Spalink describes an analogous circuit in which a number of clock skips/inserts is adjusted (see Fig. 3 at 7, 4; also paras. 0031-0032, 0035-0036, and claims 4 and 12). The skips and inserts are analogous to skips and repeats of the present invention, because they are with regard to clocks of a cycle, the cycle being a sample and the clocks therefore a fractional sample. This timing adjustment to reduce jitter, in lieu of an adjustable oscillator such as in Stern, provides the benefit of allowing

use of a free-running oscillator instead of VCO, and which then further enables integration of the cycle synchronization circuit onto a single chip (para. 0040). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to lengthen or shorten the duration by repeating or skipping reading of fractional samples, instead of adjusting the oscillator frequency, because the former was known to provide a more easily built circuit including a free-running oscillator and the integration of the synchronization circuitry onto a single chip.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary J. Portka whose telephone number is (571) 272-4211. The examiner can normally be reached on M-F 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gary J Portka/
Primary Examiner, Art Unit 2188

February 25, 2008